

REMARKS

Claim Rejections 35 U.S.C. § 112, first paragraph

The Examiner has rejected claim 9 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Applicant has amended claim 9 to contain subject matter which was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejections to claim 9 under 35 U.S.C. § 112, first paragraph.

Claim Rejections 35 U.S.C. § 103 (a)

The Examiner has rejected claims 9, 10, and 16-28 under 35 U.S.C. § 103 (a) as being unpatentable over Uzoh et al. (US 5,807,165).

Applicant respectfully disagrees with the Examiner. Applicant has amended claim 9. Support is provided in paragraphs [0022] and [0023], both on page 8 of the specification.

Claim 9, as amended, of Applicant's claimed invention claims an apparatus (100) including: a platen (110); a polishing pad (120) located over the platen, the polishing pad having properties that may be changed to optimize polish rate and polish selectivity for different materials, the properties including: hardness, stiffness, porosity, abrasiveness, and absorbance; a segmented cathode (130) located between

the platen and a rear surface of the polishing pad; a slurry (150) located on the polishing pad; a wafer (160) located on the polishing pad and the slurry; a wafer carrier (180) to hold the wafer; a segmented anode (170) located between a rear surface of the wafer (160) and the wafer carrier (180), the segmented anode being partitioned into small components that may be adjusted separately; a power supply (190) to apply a voltage between the segmented cathode and the segmented anode; and a computer (200), the computer to vary the voltage. See Figure 1.

In contrast, the Uzoh et al. reference cited by the Examiner teaches an apparatus (60) including a rotatable workpiece carrier (66), a plurality of workpiece electrodes (67) disposed in a recess R of the carrier, a rotatable platen (62) attached to a rotatable shaft (68), a platen electrode (63) attached to the platen, a polishing pad (64) mounted on the platen, a means for urging the carrier against the pad, a slurry supply system in fluid communication with the pad, and a source (80) to vary magnitude and polarity of current as a function of time. See Figures 8-9 and Figures 17A-17B. Also, see Col. 5, lines 44-51 and lines 10-22.

However, Uzoh et al. does not teach an apparatus including a segmented cathode located between a platen and a rear surface of the polishing pad; a segmented anode located between a rear surface of the wafer and a wafer carrier; the segmented anode being partitioned into small components that may be adjusted separately; and a power supply to vary a voltage between the segmented cathode and the segmented anode.

On the contrary, Uzoh et al. teaches against the present invention by teaching that an electrode portion (67E) contacts, and electrically connects to a side of a conductor layer (18) or workpiece (W). See Figure 1A.

Despite the earnest assertions of the Examiner, Applicant wishes to respectfully point out to the Examiner that a placement of an anode between a rear surface of a wafer and a wafer carrier; a segmentation of the anode; and a partitioning of the anode into small components that may be adjusted separately all

constitute non-obvious elements of Applicant's invention, as claimed in claim 9, as amended.

Applicant reiterates emphatically that these elements of Applicant's claimed invention, as claimed in claim 9, as amended, are not merely rearrangements as stated by the Examiner. Instead, these non-obvious elements do, in fact, significantly affect and improve an operation of the claimed apparatus of Applicant's invention.

Thus, Uzoh et al. does not teach, suggest, or render Applicant's invention, as claimed in claim 9, obvious to one of ordinary skill in the art of making semiconductors, at the time the invention was made.

Claims 10 and 16-28 are dependent on claim 9, as amended, and are also not rendered obvious by Uzoh et al.

In view of the foregoing, Applicant respectfully requests the Examiner to withdraw the rejections to claims 9, 10, and 16-28 under 35 U.S.C. § 103 (a).

Applicant believes that all claims pending, including amended claim 9, are now in condition for allowance so such action is earnestly solicited at the earliest possible date.

Pursuant to 37 C.F.R. § 1.136 (a) (3), Applicant hereby requests and authorizes the U.S. Patent and Trademark Office to treat any concurrent or future reply that requires a petition for extension of time as incorporating a petition for extension of time for the appropriate length of time.

Should any additional charge or fee, including extension of time fees and fees under 37 C.F.R. § 1.16 and § 1.17, be required, or otherwise needed, please charge Deposit Account No. 50-0221.

If a telephone interview would in any way expedite the prosecution of this application, the Examiner is invited to contact the undersigned at (408) 653-7897.

Respectfully submitted,
INTEL CORPORATION

Dated: ____March 2_____, 2007 ____/George Chen/____

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